

## IN THE CLAIMS

1. (Currently amended) Polyphase filter comprising:
  - at least two filters for filtering signals to produce filtered signals;
  - at least two integrators, each corresponding to one of said filters and coupled to said one of said filters ~~characterized in that said filters are coupled to integrators~~ for integrating said filtered signals;
  - wherein an output of each integrator is coupled via an impedance element to at least one of an input of an adjacent integrator and an output of an adjacent integrator.
2. (Currently amended) Polyphase filter according to claim 1, wherein an output of an integrator is coupled via a conductance element to an input of ~~a previous~~ an adjacent integrator.
3. (Currently amended) Polyphase filter according to claim 2, wherein an output of an integrator is coupled via a capacitor to an input of ~~a next~~ an adjacent integrator.
4. (Currently amended) Polyphase filter according to claim 3, wherein an integrator comprises an amplifier with an admittance element in a feedback path thereof.
5. (Original) Polyphase filter according to claim 4, wherein a filter comprises a passive element and wherein an amplifier comprises an operational amplifier.
6. (Original) Polyphase filter according to claim 5, wherein a passive element comprises a resistor and a capacitor and wherein an admittance element comprises a capacitor and a conductance element coupled in parallel to each other.
7. (Currently amended) Polyphase filter according to claim 6, wherein said polyphase filter comprises means coupled between adjacent integrators for performing at least one signal inversion between said adjacent integrators.

8. (Canceled)

9. (Canceled)